



Complete Summary

TITLE

Annual monitoring for patients on persistent medications: percentage of members 18 years of age and older who received at least a 180-days supply of ambulatory medication therapy for digoxin during the measurement year and at least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year.

SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS® 2009: Healthcare Effectiveness Data & Information Set. Vol. 1, Narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2008 Jul. 90 p.

National Committee for Quality Assurance (NCQA). HEDIS® 2009: Healthcare Effectiveness Data & Information Set. Vol. 2, Technical Specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2008 Jul. various p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of members 18 years of age and older who received at least a 180-days supply of ambulatory medication therapy for digoxin during the measurement year and at least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year.

This measure is a component of a composite measure. For each product line, four separate rates and a combined rate are reported. The other three rates pertain to:

- Annual monitoring for members on angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs) (see the related National Quality Measures Clearinghouse [NQMC] summary of the National Committee for Quality Assurance [NCQA] measure [Annual monitoring for patients on persistent medications: percentage of members 18 years of age and older who received at least a 180-days supply of ambulatory medication therapy for ACEIs or ARBs during the measurement year and at least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year](#))
- Annual monitoring for members on diuretics (see the related NQMC summary of the NCQA measure [Annual monitoring for patients on persistent medications: percentage of members 18 years of age and older who received at least a 180-days supply of ambulatory medication therapy for diuretics during the measurement year and at least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year](#))
- Annual monitoring for members on anticonvulsants (phenytoin, phenobarbital, valproic acid, carbamazepine) (see the related NQMC summary of the NCQA measure [Annual monitoring for patients on persistent medications: percentage of members 18 years of age and older who received at least a 180-days supply of ambulatory medication therapy for anticonvulsants during the measurement year and at least one drug serum concentration level monitoring test for the prescribed drug in the measurement year](#))

RATIONALE

Patient safety is highly important, especially for patients at increased risk of adverse drug events from long-term medication use. Persistent use of these drugs warrants monitoring and follow-up by the prescribing physician to assess for side-effects and adjust drug dosage/therapeutic decisions accordingly. The drugs included in this measure also have more deleterious effects in the elderly.

The costs of annual monitoring are offset by the reduction in health care costs associated with complications arising from lack of monitoring and follow-up of patients on long-term medications. The total costs of drug-related problems due to misuse of drugs in the ambulatory setting has been estimated to exceed \$76 billion annually.

Appropriate monitoring of drug therapy remains a significant issue to guide therapeutic decision making and provides largely unmet opportunities for improvement in care for patients on persistent medications.

PRIMARY CLINICAL COMPONENT

Persistent medication therapy; digoxin; annual monitoring (serum potassium, serum creatinine, blood urea nitrogen)

DENOMINATOR DESCRIPTION

Members 18 years of age and older as of December 31 of the measurement year on persistent digoxin -- defined as members who received at least a 180-days supply of ambulatory medication in the measurement year (see the "Description of Case Finding" and "Denominator Inclusions/Exclusions" fields in the Complete Summary)

NUMERATOR DESCRIPTION

Members from the denominator with at least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test* in the measurement year (refer to Table MPM-A in the original measure documentation for codes to identify physiologic monitoring tests)

***Note:** The two tests do not need to occur on the same service date, only within the measurement year.

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Use of this measure to improve performance
Variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

National Committee for Quality Assurance (NCQA). The state of health care quality 2008: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2008. 131 p.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Accreditation
Decision-making by businesses about health-plan purchasing
Decision-making by consumers about health plan/provider choice
External oversight/Medicaid

External oversight/Medicare
External oversight/State government program
Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Managed Care Plans

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Age greater than or equal to 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Seven in eight unintentional drug overdoses among the elderly that lead to hospitalization are due to drugs that commonly require outpatient monitoring.

EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

Budnitz DS, Pollock DA, Weidenbach KN, Mendelsohn AB, Schroeder TJ, Annest JL. National surveillance of emergency department visits for outpatient adverse drug events. JAMA2006 Oct 18;296(15):1858-66. [PubMed](#)

BURDEN OF ILLNESS

See the "Utilization" field.

UTILIZATION

- Each year, 1 in 400 Americans visit an emergency room as the result of an adverse drug event; of those, 1 in 6 are hospitalized. Half of all unintentional overdoses that result in an emergency room visit arise from drugs that commonly require monitoring.
- Adverse drug events result in almost two extra days spent in the hospital at an increased cost of \$2,260 and almost twice the risk of death.

EVIDENCE FOR UTILIZATION

Budnitz DS, Pollock DA, Weidenbach KN, Mendelsohn AB, Schroeder TJ, Annest JL. National surveillance of emergency department visits for outpatient adverse drug events. JAMA2006 Oct 18;296(15):1858-66. [PubMed](#)

Classen DC, Pestotnik SL, Evans RS, Lloyd JF, Burke JP. Adverse drug events in hospitalized patients. Excess length of stay, extra costs, and attributable mortality. JAMA1997 Jan 22-29;277(4):301-6. [PubMed](#)

COSTS

See the "Rationale" and "Utilization" fields.

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness
Safety

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Members 18 years of age and older as of December 31 of the measurement year on persistent digoxin -- defined as members who received at least a 180-days supply of ambulatory medication in the measurement year. Include members who were enrolled as of December 31 of the measurement year with no more than one

gap in enrollment of up to 45 days (commercial, Medicare) or not more than a one-month gap in coverage (Medicaid).

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Members 18 years of age and older as of December 31 of the measurement year on digoxin -- defined as members who received at least a 180-days supply of ambulatory medication in the measurement year

Note: To determine continuity of treatment during the 365-day period, sum the number of treatment days (days supply from all the scripts filled during the year) for a total of 180 days.

Exclusions

Exclude members who had an inpatient stay (acute or nonacute) in the measurement year. Count any visit with an inpatient facility code or use DRGs or UB Type of Bill codes from Tables IPU-A, FUH-B, MPT-A, MPT-B, IAD-A and IAD-B in the original measure documentation to identify acute and nonacute inpatient care.

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window is a fixed period of time

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Members from the denominator with at least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test* in the measurement year (refer to Table MPM-A in the original measure documentation for codes to identify physiologic monitoring tests)

***Note:** The two tests do not need to occur on the same service date, only within the measurement year.

Exclusions

Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data
Laboratory data
Pharmacy data

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Analysis by subgroup (stratification on patient factors, geographic factors, etc.)

DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

This measure requires that separate rates be reported for commercial, Medicare, and Medicaid product lines.

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Annual monitoring for patients on persistent medications (MPM).

MEASURE COLLECTION

[HEDIS® 2009: Healthcare Effectiveness Data and Information Set](#)

MEASURE SET NAME

[Effectiveness of Care](#)

MEASURE SUBSET NAME

[Medication Management](#)

DEVELOPER

National Committee for Quality Assurance

FUNDING SOURCE(S)

Unspecified

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

National Committee for Quality Assurance's (NCQA's) Measurement Advisory Panels (MAPs) are composed of clinical and research experts with an understanding of quality performance measurement in the particular clinical content areas.

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

In order to fulfill National Committee for Quality Assurance's (NCQA's) mission and vision of improving health care quality through measurement, transparency and accountability, all participants in NCQA's expert panels are required to disclose potential conflicts of interest prior to their participation. The goal of this Conflict Policy is to ensure that decisions which impact development of NCQA's products and services are made as objectively as possible, without improper bias or influence.

ENDORSER

National Quality Forum

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2005 Jan

REVISION DATE

2008 Jul

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: National Committee for Quality Assurance (NCQA). HEDIS 2008. Healthcare effectiveness data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2007 Jul. various p.

SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS® 2009: Healthcare Effectiveness Data & Information Set. Vol. 1, Narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2008 Jul. 90 p.

National Committee for Quality Assurance (NCQA). HEDIS® 2009: Healthcare Effectiveness Data & Information Set. Vol. 2, Technical Specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2008 Jul. various p.

MEASURE AVAILABILITY

The individual measure, "Annual Monitoring for Patients on Persistent Medications (MPM)," is published in "HEDIS® 2009. Healthcare Effectiveness Data & Information Set. Vol. 2, Technical Specifications."

For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

COMPANION DOCUMENTS

The following is available:

- National Committee for Quality Assurance (NCQA). The state of health care quality 2008: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2008. 131 p.

For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

NQMC STATUS

This NQMC summary was completed by ECRI on June 6, 2006. This NQMC summary was updated by ECRI on January 31, 2007. The updated information was not verified by the measure developer. This NQMC summary was updated by ECRI Institute on April 18, 2008. The information was verified by the measure developer on May 30, 2008. This NQMC summary was updated again by ECRI Institute on March 20, 2009. The information was verified by the measure developer on May 29, 2009.

COPYRIGHT STATEMENT

This NQMC summary is based on the original measure, which is subject to the measure developer's copyright restrictions.

For detailed specifications regarding the National Committee on Quality Assurance (NCQA) measures, refer to *HEDIS Volume 2: Technical Specifications*, available from the NCQA Web site at www.ncqa.org.

Disclaimer

NQMC DISCLAIMER

The National Quality Measures Clearinghouse™ (NQMC) does not develop, produce, approve, or endorse the measures represented on this site.

All measures summarized by NQMC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public and private organizations, other government agencies, health care organizations or plans, individuals, and similar entities.

Measures represented on the NQMC Web site are submitted by measure developers, and are screened solely to determine that they meet the NQMC Inclusion Criteria which may be found at <http://www.qualitymeasures.ahrq.gov/about/inclusion.aspx>.

NQMC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or its reliability and/or validity of the quality measures and related materials represented on this site. The inclusion or hosting of measures in NQMC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding measure content are directed to contact the measure developer.

[Copyright/Permission Requests](#)

Date Modified: 7/27/2009

